



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,192	12/04/2003	Mark L. Buer	2875.0170001	7312
26111	7590	10/08/2008	EXAMINER	
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C. 1100 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			WILLIAMS, JEFFERY L.	
ART UNIT	PAPER NUMBER			
	2437			
MAIL DATE	DELIVERY MODE			
10/08/2008	PAPER			

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/728,192	Applicant(s) BUER ET AL.
	Examiner JEFFERY WILLIAMS	Art Unit 2137

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 02 September 2008.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1 – 7, 9, 13 – 33, and 35 – 40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1 – 7, 9, 13 – 33, and 35 – 40 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO/SB/06)
 Paper No(s)/Mail Date 9/22/08
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____
- 5) Notice of Informal Patent Application
 6) Other: _____

DETAILED ACTION

This action is in response to the communication filed on 9/02/08.

All objections and rejections not set forth below have been withdrawn.

Claims 1 – 7, 9, 13 – 33, and 35 – 40 are pending.

Claims 8, 10 – 12, 34, and 41 – 53 are canceled.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/02/08 has been entered.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

The specification fails to provide proper antecedent basis for the recitations (or essentially similar recitations) "a user-specific type field", "wherein the outer Ethernet header comprises a user-specific type field", as found recited within claims 5 – 7, 9, 18, 30, 35, 36 and 38.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 5 – 7, 9, 18, 30, 35, 36 and 38 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant has not clearly pointed out where the new (or amended) claim is supported, nor does there appear to be a written description of the claim limitations in the application as filed (see above objection to the specification). For example, applicant claims that "*a user-specific type field*" is supported by the specification, paragraph 60. However, the examiner notes that the applicant's citation of the alleged support merely refers to the prior art Ethernet type field.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5 – 7, 9, 18, 30, 35, 36 and 38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 5 – 7, 9, 18, 30, 35, 36 and 38, they are rejected as being indefinite. The claim recitation of "...a user-specific type field..." or "...a user-specific Ethernet type" lacks a defined and customary meaning to those of ordinary skill in the art and the applicant's fail to define "a user-specific type field", thereby rendering the scope of these claims indeterminate. For the purpose of examination the examiner presumes the applicant to refer to a type field.

All depending claims to the above rejected claims are rejected by virtue of their dependency.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2137

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 – 4, 16, 17, 22 – 29, 31, and 35 – 40 are rejected under 35 U.S.C.

103(a) as being unpatentable over Bryers et al. (Bryers), U.S. Patent Publication 2003/0126233 in view of Hadzic, “Ethernet Packet Encapsulation for Metropolitan Area Ethernet Networks”, U.S. Patent, 7,130,303 in view of Mercer et al. (Mercer), “Method for Establishing a Security Association Between Two or More Computers Communicating Via an Interconnected Computer Network”, U.S. Patent Publication 2003/0018908.

Regarding claim 1, Bryers discloses:

receiving in a security processor a first Ethernet packet (fig. 10, 11, 15a, 16; par. 77, 114 – Herein, Bryers discloses a processing unit, such as a router, that performs security processing upon received Ethernet packets;

Bryers discloses a security processor for processing Ethernet packets delivered over a large distributed system (par. 7; fig. 36; par. 488). Bryers, however, does not appear to explicitly recite that one Ethernet packet may comprise another Ethernet packet. Hadzic discloses the practice of generating an Ethernet packet comprising another Ethernet packet for delivery over large distributed systems (Hadzic, fig. 1, 9; 1:44-53). It would have been obvious to one of ordinary skill in the art to employ the teachings of Hadzic with the system of Bryers. This would have been obvious because

Art Unit: 2137

one of ordinary skill in the art would have been motivated by the prior teachings that such a practice improves the efficiency and security of a network (Hadzic, 1:18-44).

The combination enables:

comprising a second Ethernet packet (Hadzic, fig. 1, 9; 1:44-53).

The combination enables processing encapsulated Ethernet packets according to security associations (Bryers, fig. 10), however, the combination does not appear to explicitly disclose that a packet comprises a *memory address associated with a security association, extracting the memory address, retrieving the security association from a memory using the received memory address.*

Mercer discloses that for the purpose of handling the requirements of high speed networks (Mercer, par. 11), packets should comprise a memory address associated with a security association (Mercer, par. 13). Furthermore, processing such packets includes extracting the memory address and retrieving a corresponding security association from memory (Mercer, fig. 7).

It would have been obvious to employ the improved packet handling and processing techniques of Mercer within the combination. This would have been obvious because one of ordinary skill in the art would have been motivated by the teachings of prior art that show such techniques improve security processing (Mercer, par. 11).

The combination enables:

and encrypting at least a portion of the extracted second Ethernet packet according to the retrieved security association (Bryers, fig. par. 193, 194, 198).

Regarding claim 37, it is rejected, at least, for the same reasons as claim 1, and furthermore because the combination enables a processing device for operating according to the Ethernet and IPSEC protocols and comprising *at least one data memory for storing at least one security association; at least one Gigabit MAC for receiving at least one second Ethernet packet* (Bryers, par. 199, fig. 4).

Regarding claims 2 – 4, 16, 25, and 38 the combination *enables an outer Ethernet header and a manufacturer header and wherein the manufacturer header comprises the memory address and wherein the outer Ethernet header comprises an Ethernet address of the security processor and wherein the extracting step comprises determining whether an Ethernet address from the at least one second Ethernet packet matches an Ethernet address of the security processor* (Bryers, par. 120, 193; Mercer, par. 13).

Regarding claims 17, 26 – 29 and 31, they comprise essentially similar recitations to the rejected claims above, and they are rejected, at least, for the same reasons.

Regarding claims 22 – 24, the combination enables retrieving security associations and encryption (Bryers 120 – 124).

Regarding claims 13 – 15, the combination enables *wherein the retrieving step comprises retrieving the at least one security association from a data memory in a security processor and wherein the encrypting step comprises using an encryption key associated with the at least one security association and wherein the encrypting step comprises using an encryption algorithm defined by the at least one security association* (Bryers, par. 120, 121, 124).

Regarding claims 35 – 36, they comprise essentially similar recitations to the rejected claims above, and they are rejected, at least, for the same reasons.

Regarding claim 39, the combination enables, *wherein the at least one encryption processor comprises at least one IPSec processor* (Bryers, par. 120 –124).

Regarding claims 40, the combination enables, an integrated circuit (Bryers, par. 23).

Claims 5 – 7, 9, 18 – 21, 30, 32 –33 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Bryers, Hadzic and Mercer in view of Stevens, TCP/IP Illustrated.

Regarding claim 5, the combination does not appear to explicitly disclose that Ethernet packets comprise user-specific type fields. Stevens discloses that composition

of packets sent via Ethernet, the composition comprising user-specific type fields (Stevens, pg. 23, fig. 2.1). It would have been obvious to one of ordinary skill in the art to recognize the teachings of Stevens within the combination of Bryers and Mercer. This would have been obvious because one of ordinary skill in the art would have been motivated to follow the established standard required to employ Ethernet.

Regarding claims 6 and 7, the combination enables *wherein a first byte of the manufacturer header is set to zero, and wherein a portion of the manufacturer header following the first byte of the manufacturer header includes the memory address* (Stevens, pg. 22, 23).

Regarding claim 9, it is rejected, at least, for the same reasons as claims 5 – 8.

Regarding claims 18 – 21, they are rejected, at least, for the same reasons as claims 6 – 12.

Regarding claims 30, 32 – 33, they comprise essentially similar recitations to the rejected claims above, and they are rejected, at least, for the same reasons.

Response to Arguments

Applicant's arguments with respect to claims 1 – 7, 9, 13 – 33, and 35 – 40 have been considered but are moot in view of the new ground(s) of rejection.

Furthermore, Applicant's arguments filed 9/2/08 have been fully considered but they are not persuasive.

Applicant argues essentially that:

- (i) *As described in detail above, the terms ... "user-specific type field" are defined in the specification in a manner that renders the scope of the claims containing either of these terms clear to a person possessing ordinary level of skill in the pertinent art. Reconsideration and withdrawal of the rejection are therefore respectfully requested.*

(Remarks, pg. 15)

In response, the examiner respectfully notes that the Applicant has not clearly pointed out where the new (or amended) claim is supported, nor does there appear to be a written description of the claim limitations in the application as filed. A consideration of the applicant's original specification fails to reveal a definition of "user-specific type field" as alleged by the applicant. Furthermore, the examiner respectfully

notes that the applicant's arguments appear to be an attempt to redefine the prior art Ethernet type field.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

See Notice of References Cited.

A shortened statutory period for reply is set to expire **3** months (not less than 90 days) from the mailing date of this communication.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffery Williams whose telephone number is (571) 272-7965. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Art Unit: 2137

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

J. Williams
AU 2137

/Emmanuel L. Moise/
Supervisory Patent Examiner, Art Unit 2137